VIII.3.3-RES-SNGL-S-QMIN26 SUBROUTINE QMIN26

Description

Subroutine QMIN26 minimizes the peak outflow from a dam.

Calling Sequence

SUBROUTINE QMIN26 (QIHYD,QIMHYD,SQIM,OBSQO,QOHYD,OBSQOM,QOMHYD,
                   STOHYD,ELVHYD,RULEL,ELEVQ,DAMQ,TOTLQ,SOTOTL,
                   PEAKO,PKPOS,STOR,ELEV,WORK)

Argument List

Argument	Input/ Output	Type	Dimension	Description
QIHYD	Input	R*4	NUM	Time series of instantaneous inflows
QIMHYD	Input	R*4	NUM	Time series of mean inflows
SQIM	Input	R*4	NUM	Time series of cumulative mean inflows computed in routine SUMN26
OBSQO	Input	R*4	NRUN	Time series of observed instantaneous outflows
QOHYD	Output	R*4	NUM	Time series of instantaneous outflows
OBSQOM	Input	R*4	NRUN	Time series of observed mean outflows
QOMHYD	Output	R*4	NUM	Time series of mean outflows
STOHYD	Output	R*4	NUM	Time series of pool storages; for the adjusted run observed or computed values where available are put in the STOHYD array through run time
ELVHYD	Output	R*4	NUM	Time series of pool elevations; observed values or values computed from observed or computed storages
RULEL	Input	R*4	NUM	Time series of rule curve elevations computed in utility routine ERUL26 before calling routine QMIN26

Argument	Input/ Output	Type	Dimension	Description
ELEVQ	Input	R*4	NDAMQ	Elevation values for pool elevation versus maximum dam discharge relation
DAMQ	Input	R*4	NDAMQ	Maximum dam discharge values (including generation and sluice discharges) for pool elevation versus maximum dam discharge relation
TOTLQ	Input	R*4	NTOTLQ	Discharges for total discharge versus total storage plus total discharge/2 relation
STOTL	Input	R*4	NTOTLQ	Total storage plus total discharge/2 values for TOTLQ versus SOTOTL relation; storage must be in units of mean discharge for the time interval
PEAKO	Output	R*4	NUMPKO	Array of peak values above a specified value that occur between time interval outflow values; peak values are stored in PEAKO until all outflow values are computed and then the PEAKO values will replace time interval values in the supervisory execution routine; not applicable if there is only one routine time step in the time interval
PKPOS	Output	R*4	NUMPKO	Array of position numbers defining where corresponding PEAKO values will replace time series outflow values; not applicable if there is only one routing time step computed for the time interval
STOR	Input	R*4	NSE	Storages for pool elevation versus storage relation
ELEV	Input	R*4	NSE	Elevations for elevation versus storage relation
WORK	Input	R*4	NTOTLQ	Work array used to store total storage plus total discharge/2 values after storage has been converted to units of mean discharge for a routing time step; if there is only one

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            Input/
Argument  Output   Type   Dimension  Description

                                     routing time step in the time
                                     interval then WORK values will be
                                     the same as SOTOTL values
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Dimension variables are in common blocks RESV26 and OMIN26.